Appln. No.: 10/501,047

Amendment Dated August 28, 2007 Reply to Office Action of June 28, 2007

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application.

## Listing of Claims:

1. (Previously Presented) An electrocatalyst ink comprising

a particulate electrocatalyst consisting of one or more optionally supported electrocatalyst metals;

one or more proton-conducting polymers; and

particles consisting of graphite which are present at a loading of 1 to 40 weight % with respect to the weight of the electrocatalyst.

- 2. (Previously Presented) An electrocatalyst ink according to claim 1, wherein the graphite is present at a loading of 2 to 25 weight % with respect to the weight of the electrocatalyst.
- 3. (Previously Presented) An electrocatalyst ink according to claim 1, wherein the one or more electrocatalyst metals is platinum.
- 4. (Previously Presented) An electrocatalyst ink according to claim 1, wherein the electrocatalyst is either a supported metal catalyst or an unsupported finely divided metal black.
- 5. (Original) An electrocatalyst ink according to claim 4, wherein the electrocatalyst metal is supported on a high surface area particulate carbon.
- 6. (Previously Presented) An electrocatalyst ink according to claim 1 further comprising a solvent, wherein at least 75 weight % of the solvent is water.
- 7. (Previously Presented) An electrocatalyst ink according to claim 1, wherein the solids content of the electrocatalyst ink is between 5 and 50 weight %.

JMYT-329US

Appln. No.: 10/501,047

Amendment Dated August 28, 2007 Reply to Office Action of June 28, 2007

- 8. (Previously Presented) An electrocatalyst ink according to claim 1, wherein the weight ratio of the electrocatalyst to the one or more proton-conducting polymers is between 1:1 and 10:1.
- 9. (Previously Presented) A process for preparing an electrocatalyst ink, said process comprising mixing a particulate electrocatalyst consisting of one or more optionally supported electrocatalyst metals with one or more proton-conducting polymers and particles consisting of graphite in a liquid medium, wherein the graphite is present at a loading of 1 to 40 weight % with respect to the weight of the electrocatalyst.
- 10. (Previously Presented) A process for preparing an electrocatalytic layer using an electrocatalyst ink according to claim 1, said process comprising applying the electrocatalyst ink to a substrate.
- 11. (Previously Presented) A gas diffusion electrode comprising a gas diffusion substrate and an electrocatalytic layer prepared using an electrocatalyst ink according to claim 1.
- 12. (Previously Presented) A catalyst coated membrane comprising a solid polymer membrane and an electrocatalytic layer prepared using an electrocatalyst ink according to claim 1.
- 13. (Previously Presented) A membrane electrode assembly comprising an electrocatalytic layer prepared using an electrocatalyst ink according to claim 1.
- 14. (Previously Presented) A process according to claim 9, wherein the liquid medium is aqueous.
- 15. (Previously Presented) A process according to claim 9, wherein the liquid medium is organic.
- 16. (Previously Presented) An electrocatalyst ink according to claim 1, wherein the electrocatalyst is a supported metal catalyst.
- 17. (Previously Presented) An electrocatalyst ink according to claim 1, wherein the electrocatalyst is an unsupported finely divided metal black.

Appln. No.: 10/501,047 JMYT-329US

Appln. No.: 10/501,047 Amendment Dated August 28, 2007 Reply to Office Action of June 28, 2007

18. (Previously Presented) An electrocatalyst ink according to claim 1, wherein none of the one or more electrocatalyst metals is supported on a graphite support.